Georgia Department of Transportation

and

University of Georgia Research Foundation, Inc.

Task Order Number: 11-01

GDOT Project Number: 12-35

Task Order Title: Development and Evaluation of Strategies to Reduce the Incidence of Deer-vehicle Collisions: Phase III – Operational Field Trail, Part B

This Task Order is made and entered into on January 16, 2013 between the Department of Transportation, State of Georgia (GDOT), and the University of Georgia Research Foundation, Inc. ("UGARF") in accordance with the Basic Ordering Agreement executed between the parties on December 22, 2011, which is hereby incorporated by reference and made a part hereof the same as if fully set forth herein to provide the provisions under which this Task Order will be conducted.

UGA is hereby assigned the above Task Order Number. The Task Order shall be conducted as follows:

1. Statement of Work

   See Exhibit A for Statement of Work and included schedule and budget estimate.

2. Maximum Reimbursable Cost and Schedule of Payments

   The maximum reimbursable cost under this Task Order is $228,511.00. See Exhibit A for the budget estimate.

3. Period of Performance

   This Task Order's starting date shall be the effective date entered above upon its execution on this first page of the Task Order. Work shall be completed within 24 months after the starting date.

4. Professional Staff

   The professional staff working on this Task Order shall include the following persons working in the designated capacities:

   Dr. Robert Warren, Project Director

   Dr. Karl Miller, Co-Project Director

5. Reports and other Deliverables

   A final report documenting all activities under this Task Order shall be submitted to GDOT in draft form within 22 months after the starting date of the Task Order. After review by GDOT, the final report shall be revised as necessary and submitted in final form suitable for reproduction within 24 months after the starting date. A Project Summary Flyer shall be delivered on or before the Project completion date in the format specified by GDOT for technology transfer use by GDOT. Quarterly Progress Reports and, as applicable, Project Management Reports are required as noted in the Basic Ordering Agreement. Deliverables under this Task Order, in addition to the Final Report and other reports noted in this section, are identified in Exhibit A. Statement of Work, included herein as part of the Task Order.

6. Acceptance Criteria (Acceptance Test)

   GDOT acceptance of the Project and deliverables shall be made upon satisfactory completion of work and delivery of reports and all deliverables noted in Exhibit A. Statement of Work, and of requirements contained in this Task Order and incorporated Basic Ordering Agreement.

IN WITNESS WHEREOF, said parties have hereunto set their seals the day and year above first written:

DEPARTMENT OF TRANSPORTATION

Commissioner (SEAL)

ATTEST

Treasurer

UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.

BY:

Title: Jacob Maas
Senior Grants Officer

ATTEST:

Title: Grants Officer

FEI#: 58-1353149

Note:
For UGARF - the Witness, Notary Public, and Corporate Seal, have been executed on the BOA and is incorporated in this Task Order by Reference. This format has been approved by GDOT Legal Services and UGARF and is incorporated in this Task Order by reference.

EXHIBIT A

TITLE: Development and Evaluation of Strategies to Reduce the Incidence of Deer-vehicle Collisions: Phase III – Operational Field Trail, Part B

PIs: Robert J. Warren and Karl V. Miller, University of Georgia Warnell School of Forestry and Natural Resources

PROBLEM STATEMENT:

Increasing wildlife populations, coupled with expanding transportation systems, have led to a rise in the number of negative human-wildlife interactions, and most importantly, a rise in the number of deer-vehicle collisions. Annually, there are approximately 1.5 million deer-vehicle collisions nationwide at a cost of nearly $1 billion in damages and resulting in over 200 human fatalities. Approximately 51,000 deer-vehicle collisions occur annually within the state of Georgia.

Most states attempt to minimize deer-vehicle collisions through a variety of techniques, including signage, modified speed limits, highway lighting, roadside fencing, over/underpasses, warning whistles, habitat alteration, and reflective devices. However, little published information exists concerning deer behavior relative to roadways and mitigation techniques, nor relative to the physiology of deer vision and hearing that are often purported to be the basis of many mitigation techniques. Such information is critical to evaluating, understanding, and implementing cost-effective strategies to mitigate deer-vehicle collisions.

LITERATURE SEARCH:

This proposed research represents Phase III of a research project that began in 2004. During Phase I (2004 – 2007), we prepared a comprehensive literature review on the strategies designed to reduce deer-vehicle collisions (D'Angelo et al. 2004). We also evaluated wildlife-warning reflectors (D'Angelo et al. 2006), deer visual physiology (D'Angelo et al. 2008), and deer hearing (D'Angelo et al. 2007, Valitski et al. 2009). We concluded that Strieter-Lite wildlife-warning reflectors, the only device eligible for federal funding to prevent deer-vehicle collisions, were ineffective. We also provided the first scientific information on deer vision and hearing integral to the development of effective and economically feasible strategies to minimize deer-vehicle collisions. Our results from Phase I demonstrated that sight- and sound-based deterrents were unreliable for modifying behavior of deer within roadway corridors in response to oncoming vehicles.

Based on the results from Phase I, Phase II (2007 – 2010) of this research project focused on testing the efficacy of various physical barriers for restricting deer access to roadways. We evaluated the efficacy of various designs of physical barriers in preventing deer crossings, and documented the behavioral responses of captive deer to these designs (Stull et al. 2011). These captive trails revealed that the 2 most effective fences in preventing deer crossings were (1) an 8-feet woven-wire fence and (2) a 4-feet woven-wire fence with a 2-feet outrigger mounted on top and angled at 45°. Based on these results, we conducted a small-scale field trial, for which we evaluated home ranges, fence crossings, and fence circumventions of free-ranging, radio-collared

deer before and after construction of 1 mile of 8-feet fence and 1 mile of 4-feet outrigger fence (Gulsby et al. 2011). Actual crossings of the fence area were reduced, post-construction, by 98% and 90% for the 8-feet and 4-feet outrigger fence treatments, respectively. Although we recorded fewer crossings of the 8-feet fence, the 4-feet outrigger fence may be a viable option for reducing deer-vehicle collisions because of its affordability. Costs of material and labor to construct the 4-feet outrigger fence were 21% less than to construct the 8-feet fence. Furthermore, the 4-feet fences that already exist along many roadways in Georgia could be retrofitted with the outrigger, resulting in even greater savings compared to construction of new fence. The 4-feet outrigger fence not only has significant cost savings compared to the 8-feet fence, but it also has the advantage of potentially serving as a one-way barrier (i.e., deer can jump it when the outrigger angles away from them). If a deer were to become entrapped in a roadway with 8-feet fence on both sides, escape from the roadway is unlikely.

Phase II documented that the fences used in the small-scale field trial were sufficiently effective to simulate how deer respond to roadside barriers. It also demonstrated the importance of incorporating information on deer behavior and natural landscape features into strategies to reduce deer-vehicle collisions. If these factors are not accounted for, then the frequency of deer-vehicle collisions will likely stay the same or increase near fence endings. Thus, roadside fences should ideally end at natural barriers to deer movements (i.e., heavy development) or incorporate some means of safe crossing into their endings. Phase III of this research project is designed to incorporate these factors into an operational field trial using the 4-feet outrigger fence.

Internet searches pertaining to deer responses to fences were conducted for published research, as well as the databases maintained by the Transportation Research Board (http://ntl.bts.gov/tris) and Research in Progress (http://rip.trb.org/search). No other published research was available to document the responses of deer to the 4-feet outrigger fence design under a larger scale, operational field trial.

RESEARCH ACCOMPLISHED UNDER PHASE III, PART A:

GDOT provided 2 years of funding for Part A of this project in 2012. Part A represented the preparatory field work required before we could implement the experimental outrigger fence treatment. Specifically, during Part A we selected the test roadway for the operational field trial and captured and radio-collared deer for this experiment. Part B will enable us to construct the experimental fence and compare deer movements before, during, and after construction of the outrigger fence. To date we have accomplished the following specific tasks under Part A in preparation for construction of the outrigger fence under Part B:

Roadway Selection:

We worked with officials from GDOT and FHWA-Georgia Division to identify a 5-mile segment of highway in Georgia for use in this operational field trial. To be selected, the test roadway had to be identified as having a high incidence of deer-vehicle collisions and it had to be fenced on both sides with standard 4-foot woven-wire fencing so that we can add the 2-foot outriggers on top of the existing fence. The test roadway that we selected was the 4.8-mile segment of I-20 starting at Exit 114 near Madison, Georgia and proceeding eastward to the

underpass at Barrow's Grove Road (see Figure 1). This I-20 test roadway is ideal for this experiment because it has only 1 major breach along the entire 4.8-mile length, which occurs at the overpass at Bethany Road. Of course, potential breaches could occur at both ends of the 4.8-mile segment at Exit 114 and the Barrow's Grove Road underpass; however, the urbanized area surrounding Exit 114 should act as a barrier to deer movement, and the underpass at Barrow's Grove Road should allow deer to pass safely under I-20. This I-20 test roadway also is ideal because it contains heavily forested habitat, as well as mixed agriculture and forest habitat on both sides of the road. These associated habitat features represent most of the major habitat types that occur along roadways throughout much of Georgia.

Deer Capture:

Under Part A, we captured 21 adult deer (both male and female) that reside on both sides of the 4.8-mile, I-20 test roadway. Figure 1 depicts the capture location for each deer within our study area. We attached global positioning system (GPS) collars that allow us to remotely download the locations of each deer without the need to recapture and retrieve the radiocollar. This technology allows us to continuously monitor the deer before, during, and after construction of the experimental fence. These deer will represent the experimental animals that will allow us to determine the effects of the experimental fence on their movements and the resulting potential reduction in deer-vehicle collisions.

FUNDING NEEDS AND RESEARCH OBJECTIVES FOR PART B:

Part A was funded for 2 years. Part B funding also includes 2 years; however, the timing for parts A and B overlap such that Year 2 from Part A also represents Year 1 of Part B. Therefore, some budget line items listed under Year 1 in the attached budget are listed as $0 because these funds were previously provided by GDOT under Part A of this project. Funding required for Part B of this project will: (1) permit us to construct the experimental outrigger fence along the 4.8-mile, I-20 test roadway; (2) enable us to monitor deer movements for 1 year post-construction; and (3) allow us to evaluate the durability and maintenance requirements for the experimental outrigger fence. Our final report will include detailed instructions and specifications necessary for GDOT to retrofit existing 4-feet woven-wire fences along roadways in other portions of Georgia.

The objectives for Part B of this proposed research project are (1) to construct the experimental outrigger fence along the 4.8-mile, I-20 test roadway; (2) to compare responses of deer across multiple seasons before and after fence construction as a basis for evaluating fence effectiveness; and (3) to determine the cost, durability, and maintenance requirements of the experimental outrigger fence.

Fence Construction and Evaluation:

Under Part A, we conducted detailed field inspections of the 4.8-mile, I-20 test roadway. These inspections revealed that the existing 4-foot woven-wire fencing is in disrepair. Approximately every 30-50 feet in some sections of the forested areas, the existing fence has wooden debris on it, or the fence is broken so as to allow potential passage of deer (see Figure 2). In some sections

of the agricultural habitats adjacent to I-20, the fence is overgrown with vegetation (see Figure 3). Therefore, prior to construction of the experimental outrigger fence, we will need to clear the vegetation and wooden debris, as well as repair the existing 4-feet woven-wire fence throughout much of the length of the 4.8-mile, I-20 test roadway. These repair costs have been added to the budget necessary to construct the experimental outrigger fence

Fence construction will be performed by a private contractor to be selected through the University of Georgia's competitive bidding process. Fence construction will commence during Month 3, with completion scheduled for Month 4. At this time, the GPS collars will have been deployed on deer for at least 9 – 10 months under Part A of this project. Both sides of the 4.8-mile, I-20 test roadway will be fenced. We will attach a 2-foot outrigger (Hearne Steel Company, Hearne, TX) to the top of each fence post; the outrigger will be angled at 45° and face away from the road. We will thread 5 strands of high-tensile wire into pre-cut slots spaced 5 inches apart on the outriggers to create the fence. We will maintain detailed records of the material and labor costs necessary to retrofit the existing woven-wire fence with the outrigger design. At least once per month during for the period from Month 5 of Year 1 until Month 5 of Year 2, we will inspect the entire 4.8-mile length of the outrigger fence on both sides of the highway to monitor its performance. In particular, we will look for fallen limbs or trees, any signs of deterioration of the high-tensile wire, any signs of vandalism, etc. These records will provide the basis for characterizing the cost, durability, and maintenance requirements of the 4-foot outrigger design.

Deer Movements Before and After Fence Construction:

To adequately evaluate the efficacy of the experimental outrigger fence, we will collect data on deer movements during both pre- and post-construction periods, as well as across multiple seasons to account for seasonal variation in deer behavior and ecology. Deer behavior changes greatly among seasons and these changes could affect the efficacy of the fence. In particular, GDOT has documented that deer-vehicle collisions in Georgia increase significantly during autumn, which is the breeding season for deer in the state. Therefore, it will be particularly important for this experiment to include deer monitoring during the autumn seasons of 2 years—one before fence construction and one after fence construction.

The pre-treatment period for this proposal will include a portion of Part A, as well as Months 1-3 of Part B (i.e., 9-10 months prior to construction of the experimental fence). For Part B, the post-treatment period will be designated as Month 6 of Year 1 until Month 5 of Year 2 (i.e., 10-11 months after construction of the experimental fence). At least once per week, we will remotely download the deer locations using the GPS radiocollars. The GPS data will be analyzed in relation to the extensive Geographic Information System (GIS) database available from the Georgia GIS Clearinghouse. We will also work closely with the GDOT county office to collect detailed records regarding deer-vehicle collisions along the segment of highway before and after we retrofit the outrigger fence.

RESEARCH SIGNIFICANCE:

As proposed, this research would address at least 2 of the 5 top priorities identified by the Transportation Research Board recently in a survey of 444 professionals from across North America (Bissonette and Cramer 2008):

1. Incorporate wildlife mitigation needs early in the Department of Transportation/Ministry of Transportation programming, planning, and design process;
2. Better understand the dynamics of animal use of mitigation structures (e.g., what works and what does not) and disseminate this information;
3. Combine several integrated animal-friendly mitigation methods such as wildlife crossings, fences, and escape ramps rather than relying on just one method;
4. Use conservation plans and connectivity analyses to inform the transportation programming/planning/design process on where mitigation is needed and how it may be carried out; and
5. Develop alternative cost-effective wildlife crossing designs and the principles upon which they are based.

More directly, this research will provide information to maximize the cost effectiveness and ultimate efficacy of using fences to prevent deer crossings of roadways. This research would provide significant savings by decreasing the incidence of deer-vehicle collisions, their associated economic losses from property damage, and reductions in injuries or death to both motorists and deer. McCollister and van Manen (2010) detailed how the economic benefits from reduced human injuries, fewer fatalities, and decreased property damage from a lower incidence of wildlife-vehicle collisions more than exceeded the economic costs of including these mitigation costs in the construction of a 4-lane section of U.S. Highway 64 in North Carolina.

PROJECT DURATION – Phase III, Part B: The total project duration is 24 months (see attached schedule).

COST ESTIMATE – Phase III, Part B: The total project cost is $228,511.00 (see attached budget).

PROJECT CO-INVESTIGATORS:

Dr. Robert J. Warren, Daniel B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens 30602; 706-542-6474; warren@warnell.uga.edu

Dr. Karl V. Miller, Daniel B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens 30602; 706-542-1305; kmiller@warnell.uga.edu

REFERENCES:

Bissonette, J.A. and P.C. Cramer. Evaluation of the use and effectiveness of wildlife crossings. National Cooperative Highway Research Program Report 615, Transportation Research Board, Washington, D.C., USA.

D'Angelo, G. J., R. J. Warren, K. V. Miller, and G. R. Gallagher. 2004. Evaluation of strategies designed to reduce deer-vehicle collisions: An annotated bibliography. 74 pp. Posted on the Internet at: www.dot.state.ga.us/dot/construction/materials-research/b-admin/research/onlinereports/Deer_Review.pdf and www.forestry.uga.edu/h/research/wildlife/devices/GADOTLiteratureReview.pdf.

D'Angelo, G. J., J. G. D'Angelo, G. R. Gallagher, D. A. Osborn, K. V. Miller, and R. J. Warren. 2006. Evaluation of wildlife warning reflectors for altering white-tailed deer roadside behavior. Wildlife Society Bulletin 34:1175-1183.

D'Angelo, G. J., A. R. De Chicchis, D. A. Osborn, G. R. Gallagher, R. J. Warren, and K. V. Miller. 2007. Hearing range of white-tailed deer as determined by auditory brainstem response. Journal of Wildlife Management 71:1238-1241.

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Gulsby, W.D., D.W. Stull, G.R. Gallagher, D.A. Osborn, R.J. Warren, K.V. Miller, and L. V. Tannenbaum. 2011. Movements and home ranges of white-tailed deer in response to roadside fences. Wildlife Society Bulletin 32: *In Press*.

McCollister, M.F. and F.T. van Manen. 2010. Effectiveness of wildlife underpasses and fencing to reduce wildlife-vehicle collisions. Journal of Wildlife Management 74:1722-1731.

Stull, D. W., W. D. Gulsby, J. A. Martin, G. J. D'Angelo, G. R. Gallagher, D. A. Osborn, R. J. Warren, and K. V. Miller. 2011. Comparison of fencing designs for excluding deer from roadways. Human-Wildlife Interactions 5:47-57.

Valitzski, S. A., G. J. D'Angelo, G. R. Gallagher, D. A. Osborn, K. V. Miller, and R. J. Warren. 2009. Deer responses to sounds from a vehicle-mounted sound-production system. Journal of Wildlife Management 73:1072-1076.

BUDGET JUSTIFICATION

NOTE: Part A was funded for 2 years. Part B funding also includes 2 years; however, the timing for parts A and B overlap such that Year 2 from Part A also represents Year 1 of Part B. Therefore, some budget line items listed under Year 1 in the attached budget are listed as $0 because these funds were previously provided by GDOT under Part A of this project.

I. SALARIES & FRINGE BENEFITS:

The budget provides 1 year (i.e., the third year) of funding for 1 M.S. graduate student, James Stickles at 0.4 EFT (i.e., $17,515/annum). The graduate student will assist Drs. Robert Warren and Karl Miller in all aspects of the field data collection, laboratory analyses, data analyses, and reporting as described in the Research Procedures Section above. Fringe benefits are estimated at 4.2 % of a 0.4 EFT assistantship for the graduate student.

The budget also includes funding for a UGA student intern/technician at $10/hour for 20 hours/week for 1year to assist with monitoring deer and the experimental fence. Fringe benefits are estimated at 1.5 % of the salary for the student intern/technician.

The budget also includes funding for David Osborn, Research Coordinator, to assist with this research project (i.e., subcontracting fencing, purchasing supplies, deer capture/monitoring, UGA Animal Care and Use requirements, GADNR permitting, date interpretation, preparation of final report, etc.). The estimated $6,000/year represents an average about 0.11 EFT (i.e., 4-5 hours/week) of his annual salary ($53,571) plus fringe benefits @ 34%.

II. TRAVEL:

The budget includes funding for the Co-principal Investigators and/or graduate student to travel to scientific conferences, including those held outside of the state of Georgia, to present results from this research project.

III. SUPPLIES/OPERATING EXPENSE:

The Materials and Supplies necessary for this project include refurbishment costs for GPS collars, trapping supplies, immobilizing drugs, field supplies, outriggers, fencing materials, etc.

Fence repair and construction of the experimental outrigger fence will be performed by a private contractor to be selected through UGA's competitive bidding process.

The budget includes funds to pay for the use of a UGA vehicle to support field work, which is estimated at $20/day and $0.58/mile for an estimated 100 miles/day for 4 months per year.

IV. INDIRECT COSTS:

Indirect Costs are calculated at 26% according to UGA's policy for payment of indirect costs for off-campus research projects funded from federal sources.

Figure 1. I-20 test roadway from Exit 114 near Madison Georgia, proceeding eastward to the underpass at Barrow's Grove Road. Also depicted are the capture locations for the 21 deer that were captured and radio-collared during Phase III, Part A of this project.

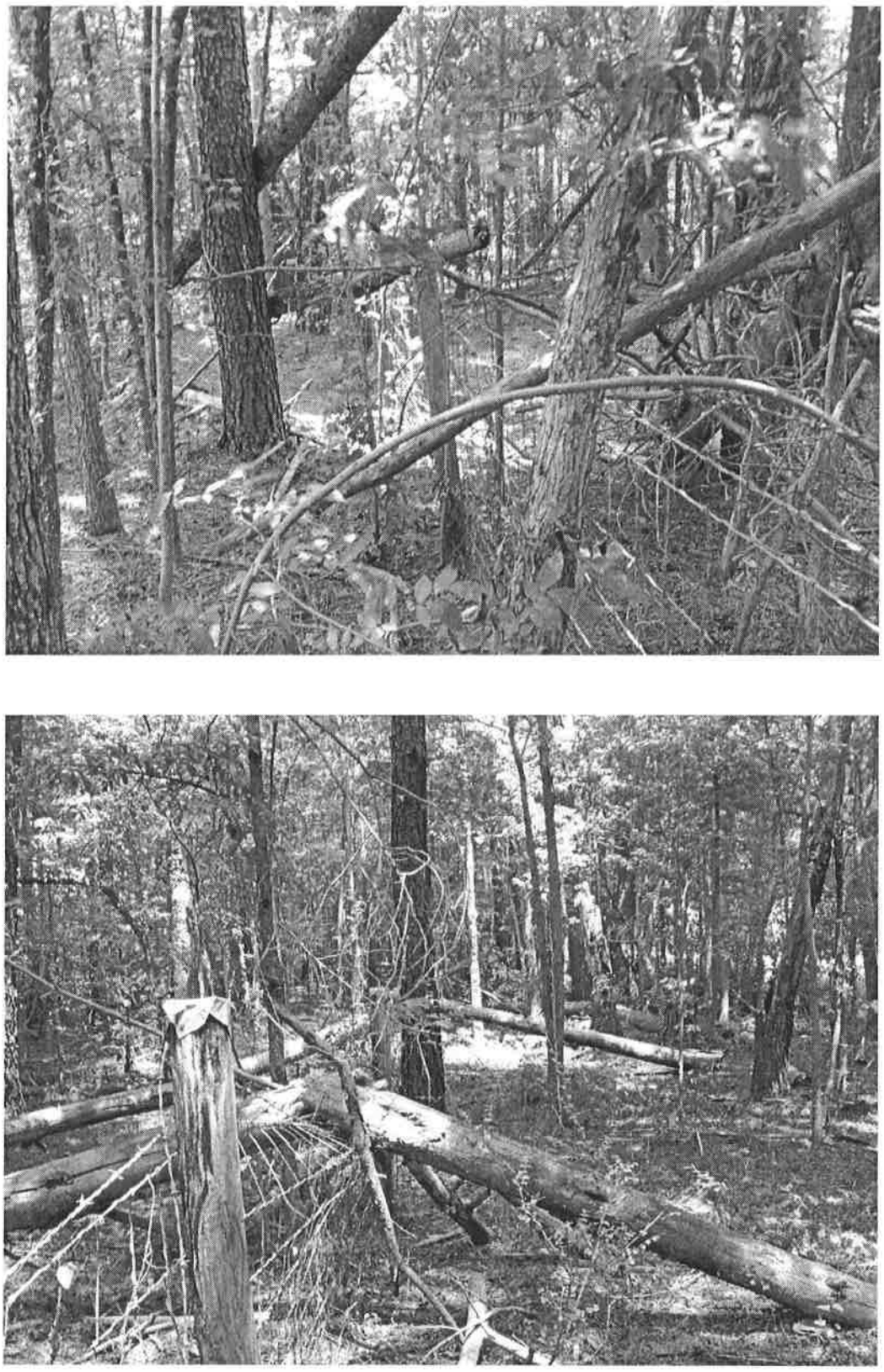

Figure 2. Two photos depicting examples of the state of disrepair for the existing 4-feet woven-wire fence in the forested areas along some segments of the I-20 test roadway.

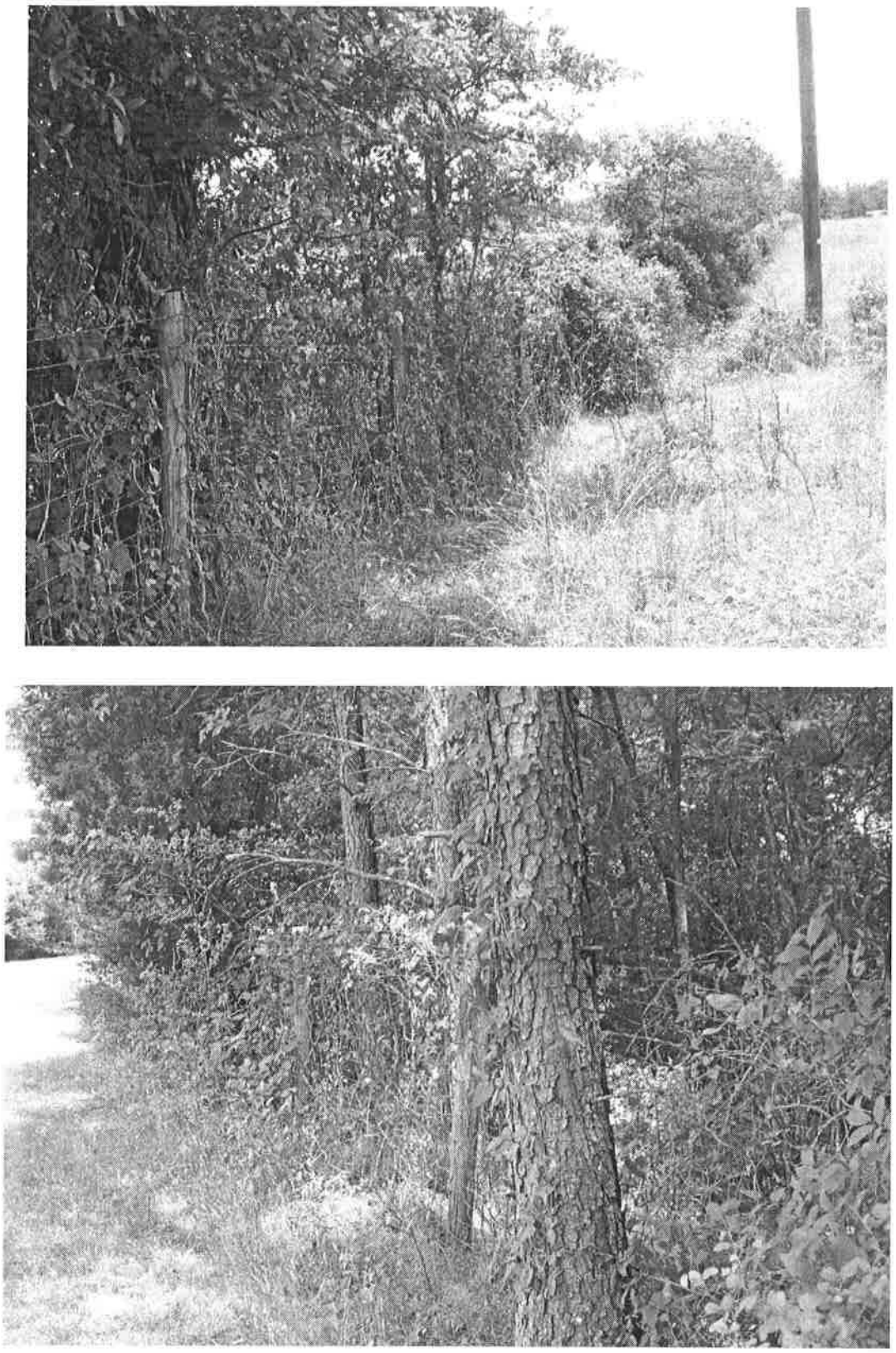

Figure 3. Two photos depicting examples of the state of disrepair for the existing 4-foot woven-wire fence in the agricultural areas along some segments of the I-20 test roadway.

Proposed Project Schedule: 24 months

Activity	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1 Order outriggers and supplies for experimental fencing																								
2 Capture deer for recollaring to replace mortalities from Year 1																								
3 Select subcontractor for fence construction																								
4. Monitor GPS-collared deer prior to fence construction																								
5. Construct experimental fence along 4.8-mile test roadway																								
6. Inspect experimental fence on both sides of test roadway (once/month)																								
7. Monitor GPS-collared deer after fence construction																								
8. Complete data analysis and write draft final report																								
9. Review and editing draft final report																								
10. Project milestone reports																								

Figure 1. Schedule of activities for Phase III, Part B of proposed deer research to conduct an operational field trial of experimental fencing along a 4.8-mile roadway in Georgia.

PROJECT TITLE: Development and Evaluation of Strategies to Reduce the Incidence of Deer-vehicle Collisions: Phase III – Operational Field Trail, Part B

PI(S): Robert J. Warren and Karl V. Miller

PROJECT PERIOD: 24 months

DESCRIPTION		Year 1	Year 2	TOTAL
SALARIES - STUDENTS				
1 M.S. STUDENT (0.4 EFT) [a]		$0	$17,515	$17,515
UGA STUDENT INTERNS [b]		$10,400	$0	$10,400
RESEARCH COORDINATOR		$6,000	$6,000	$12,000
TOTAL SALARIES		**$16,400**	**$23,515**	**$39,915**
FRINGE BENEFITS - M.S. STUDENT [a]	4.20%	$0	$736	$736
FRINGE BENEFITS - STUDENT INTERNS	1.50%	$156	$0	$156
FRINGE BENEFITS - RES. COORD.	34.00%	$2,040	$2,040	$4,080
TOTAL FRINGE BENEFITS		**$2,196**	**$2,776**	**$4,972**
TOTAL PERSONNEL		**$18,596**	**$26,291**	**$44,887**
DOMESTIC TRAVEL [a,c]		$0	$2,806	$2,806
TOTAL TRAVEL		**$0**	**$2,806**	**$2,806**
MATERIALS & SUPPLIES [d]		$57,940	$0	$57,940
COSTS OF FENCE REPAIR/CONSTRUCTION [e]		$66,000	$0	$66,000
VEHICLE CHARGES [a,f]		$0	$9,725	$9,725
TOTAL OPERATING		**$123,940**	**$9,725**	**$133,665**
MAJOR EQUIPMENT >$5,000/ea		$0	$0	$0
TOTAL EQUIPMENT		**$0**	**$0**	**$0**
TOTAL DIRECT COSTS		**$142,536**	**$38,822**	**$181,358**
INDIRECT COSTS @26%		**$37,059**	**$10,094**	**$47,153**
TOTAL PROJECT COSTS		**$179,595**	**$48,915**	**$228,511**

[a] No funds ($0) are requested during Year 1 because these funds were provided in the contract for Part A.

[b] UGA student interns at $10/hour for 20 hours/week for 52 weeks /year.

[c] Co-PI and student researcher travel expenses for presentation of research results at professional conferences including those held outside of the state of Georgia.

[d] Materials and supplies necessary to repair existing 4-foot woven-wire fence and construct the 2-foot outrigger to the existing fence for 10 miles (i.e., 52,800 feet; both sides of I-20 for 5 miles).

[e] Costs (private contractor) to repair existing 10 miles of 4-foot woven-wire fence and attach the 2-foot outrigger to the fence; estimated at $1.25/foot for 10 miles (i.e., 52,800 ft.; both sides of I-20 for 5 mi.).

[f] UGA vehicle charges based on $20/day and $0.58/mile; estimated 100 miles/day for 4 months per year.

Keeping Georgia on the Move

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Contract No. and Name: #48400-265-RP1130, Basic Ordering Agreement with Georgia Department of Transportation

Name of Contracting Entity: University of Georgia Research Foundation, Inc.

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify,* in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.GA. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation at the time the subcontractor(s) is retained to perform such service.

45817
EEV / E-Verify™ User Identification Number

8/1/2007
Date of Authorization

Duane J Ritter
BY: Authorized Officer or Agent
(Name of Person or Entity)

12/7/2011
Date

DEPUTY DIRECTOR HR
Title of Authorized Officer or Agent

DUANE J RITTER
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

7 DAY OF December, 2011

Vickie L. Hogan
Notary Public

[NOTARY SEAL]

VICKIE L HOGAN NOTARY PUBLIC OGLETHORPE COUNTY, GA EXP. JUNE 27, 2015

My Commission Expires: 6-27-2015

* **or any subsequent replacement** operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603

Revised 8/22/11